

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
18 March 2004 (18.03.2004)

PCT

(10) International Publication Number
WO 2004/022288 A3

(51) International Patent Classification⁷: B23C 5/08

(21) International Application Number:
PCT/US2003/027218

(22) International Filing Date:
2 September 2003 (02.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/407,727 3 September 2002 (03.09.2002) US

(71) Applicant (for all designated States except US): KEN-
NAMETAL INC. [US/US]; P. O. BOX 231, 1600 TECH-
NOLOGY WAY, LATROBE, PA 15650-0231 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): ERICKSON,
Robert, A. [US/US]; 1005 Pebblebrook Drive, Raleigh,
NC 27609 (US). ANDRAS, Linn, R. [US/US]; R. R. 2,
BOX 144AA, LIGONIER, PA 15670 (US).

(74) Agents: MEENAN, Larry, R. et al.; KENAMETAL
INC., P. O. BOX 231, 1600 TECHNOLOGY WAY, LA-
TROBE, PA 15650-0231 (US).

(81) Designated States (national): AU, BR, CA, CN, DE, GB,
IL, IN, JP, KR, NO, NZ, PH, PL, RU, SG, US, ZA.

(84) Designated States (regional): European patent (AT, BE,
BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,
IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

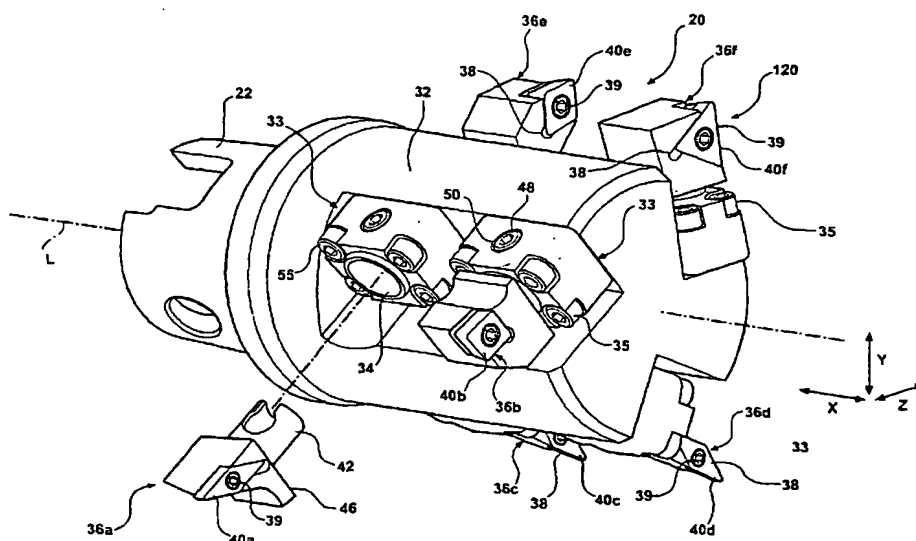
Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
24 February 2005

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: TOOLHOLDER



(57) Abstract: A toolholder (20) comprises a body portion (32), a support member assembly (33) mounted to the body portion and an insert-receiving cartridge (36) removably received in the support member. The insert-receiving cartridge (36) includes a pocket (38) for mounting a cutting insert (40) thereon. The support member assembly (33) includes a bore and the insert-receiving cartridge (36) includes a shank capable of being received in the bore. The combination of the insert-receiving cartridge (36) and the cutting insert (40) forms a cutting tool for a particular cutting operation. In one embodiment, the cutting tools are radially mounted to a side periphery of the body portion (32) such that the vertical axis of the cutting tool is substantially parallel to the longitudinal axis (L) of the toolholder (20).

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/27218

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B23C 5/08

US CL : 407/46

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 407/46, 66,67,69,113,101,102,103,113,35,40

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3,701,187 A (ERKFRITZ) 31 October 1972 (31.10.1978), see entire document	1,2,4,7-11,20-23,26,27
Y		3,5,6,12,13-19,24 and 25
A	US 3,078,547 A (SWEET) 26 February 1963 (26.02.1963) see entire document	1-27
A	US 5,395,186 A (QVART) 07 March 1995 (07.03.1995) see entire document	1-27
A	US 5,704,736 A (GIANNETTI) 06 January 1998 (06.01.1998), see entire document	1-17
A	US 5,873,682 A (TRIPSA) 23 February 1999 (23.02.1999), see entire document	1-17

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

20 July 2004 (20.07.2004)

Date of mailing of the international search report

13 JAN 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Andrea Wellington

Telephone No. 703 308 1148

Sheila H. Vandy
Paralegal Specialist
Tech. Center 3700